



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/414,004	10/07/1999	VICTOR KATSAP	2925-0411P	2693

47396 7590 06/15/2005

HITT GAINES, PC  
AGERE SYSTEMS INC.  
PO BOX 832570  
RICHARDSON, TX 75083

EXAMINER
----------

FERNANDEZ, KALIMAH

ART UNIT	PAPER NUMBER
----------	--------------

2881

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

2

# Office Action Summary

Application No.

09/414,004

Applicant(s)

KATSAP ET AL.

Examiner

Kalimah Fernandez

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 41-50, 52, 53, 55-67, 69 and 70 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 41-50, 52, 53, 55-67, 69 and 70 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3-25-05
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 41-42, 47, 58-59, and 64 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pat No 5,936,335 issued to Clerc.

3. Clerc discloses an electron gun having at least one lens array/grid (23), placed in a drift space adjacent to the electron gun (see fig. 4).

4. Clerc discloses the lens array/grid (23) splits the electron beam into a plurality of sub-beams to control emittance (see col.1, lines 20-22).
5. As per claims 42 and 59, Clerc discloses the lens array/grid is placed in the electron gun assembly (see fig.4).
6. As per claims 47 and 64, Clerc discloses the lens array is a mesh grid (23).
7. As per claim 58, Clerc discloses a method of controlling beam emittance having the steps: 1) supplying an electron beam with an electron gun including an electron assembly (col.1, lines 14-20), and 2) splitting the electron beam via at least one lens array/grid (23) placed in a drift space, adjacent to the electron gun (col.1, lines 20-22).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 48-50,52,55-57, 65-67, and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clerc and in view of US Pat No 4,553,064 issued to Amboss.

10. Clerc teaches the claimed invention, except for multiple grids.

11. However, the addition of multiple grids is an obvious variation, because Amboss illustrates the generally knowledge in the art to employ multiple grids (see col.2, lines 61-67).

12. It would have been obvious to an ordinary artisan at the time of the invention to add more grids, since Amboss teach the advantage of multiple grids in col.1, lines 24-35.

13. As per claims 57 and 65-66, Amboss teaches three grids, wherein the two outer mesh grids--- the first and the last grids have a curved shape (see fig. 6).

14. As per claims 50 and 67, the combined references Clerc and Amboss make the use of a continuous foil obvious, because the selection of a continuous foil instead of a grid is a matter of obvious design choice, wherein an ordinary artisan could logically substitute a foil based on its suitability to achieve known results.

15. As per claims 52 and 69, Clerc teach 40-90% transmission (see col.5, lines 15-20).

16. As per claims 55-56, the recited equation could logically inferred from the combined disclosures of Clerc and Amboss since the divergence equation is easily derivable and falls within ordinary skill in the art.

17. Claims 43-46, 53, 60-63, and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clerc as applied to claims 41 and 58 above, and further in view of US Pat No 5,376,792 issued to Schamber et al.

18. Clerc teaches the claimed invention except for a liner tube.

19. However, Schamber et al teach the desirability of a liner tube in conjunction with an electron gun (see for example col.1, lines 11-51).

20. It would have been obvious to an ordinary artisan at the time of the invention to combine Clerc and Schamber et al since Schamber et al teach reduced cost and simplified construction (see col.3, lines 63-67).

21. As per claims 53 and 70, Schamber et al teach an EBES tool (see col.1, lines 5-10).

### ***Response to Arguments***

22. Applicant's arguments with respect to claims 41-50, 52-53, 55-67, and 69-70 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Pat No 4,091,311 issued to Mendelsohn et al; US Pat No 4,381,473 issued to Endoh et al; US Pat No 6,091,187 issued to Golladay et al; and US Pat No 3,798,478 issued to Say are considered relevant to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kalimah Fernandez whose telephone number is 571-272-2470. The examiner can normally be reached on Mon-Tues 6:30-3:30; Wed-Thurs 8-5 and Fri.9am-6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on 571-272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KF



JOHN R. LEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800